

What is claimed is:

1 1. A method of accounting for services provided over a packet-based
2 network, comprising:
3 determining a type of service used over the network;
4 monitoring usage of the service; and
5 collecting accounting information based on the type of service and usage
6 of the service.

1 2. The method of claim 1, wherein the determining, monitoring, and
2 collecting are performed in a first entity, the method further comprising transmitting,
3 from the first entity, the collected accounting information to at least another entity.

1 3. The method of claim 2, further comprising assigning an identifier with the
2 collected accounting information that is common between the first entity and the at least
3 one other entity.

1 4. The method of claim 2, wherein collecting the accounting information
2 includes compiling the accounting information into an accounting unit.

1 5. The method of claim 4, further comprising using an accounting unit
2 having a common format for convenient exchange between entities.

1 6. The method of claim 4, further comprising using an accounting unit
2 including a traffic matrix segment.

1 7. The method of claim 1, wherein determining the type of service includes
2 determining one of a plurality of service types.

1 8. The method of claim 7, wherein determining one of the plurality of service
2 types include determining one of real-time communications and at least another type of
3 service.

1 9. The method of claim 1, further comprising determining a quality of
2 service for communications over the network.

1 10. The method of claim 1, further comprising determining if mobility
2 management is provided for service on the network used by a mobile node.

1 11. The method of claim 1, further comprising determining usage of a radio
2 interface by a mobile node to access the network.

1 12. The method of claim 1, further comprising determining usage of a visited
2 network by a mobile node.

1 13. The method of claim 1, further comprising determining usage of a packet
2 data protocol to communicate information over the network.

1 14. The method of claim 1, further comprising determining a metering class of
2 the service that indicates if the service is chargeable.

1 15. The method of claim 1, further comprising creating a network access
2 identifier to identify a node using the service.

1 16. A method of accounting for services provided over a packet-based
2 network, comprising:

3 communicating units of accounting information carrying information
4 regarding usage of the packet-based network, the unit of accounting information having a
5 predetermined format capable of being exchanged between a plurality of entities; and
6 assigning values to entries in each unit of accounting information based on
7 usage, the unit including a first entry indicating a type of service provided over the data
8 network.

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2 17. The method of claim 16, wherein assigning values to entries further includes assigning a value to an additional entry indicating a quality of service.

1 18. The method of claim 17, wherein assigning values to entries further
2 includes assigning values to additional entries including entries indicating usage of a
3 radio interface, indicating usage of a visited network, indicating usage of mobility
4 management, and indicating an amount of data transferred.

1 19. The method of claim 18, wherein assigning values to entries further
2 includes assigning a value to an additional entry indicating erroneous termination of
3 communications.

1 20. The method of claim 19, wherein assigning values to entries further
2 includes assigning a value to an additional entry indicating an amount of discarded data.

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1 21. A system capable of being coupled to a packet-based network,
2 comprising:
3 a unit to collect usage information based on a service used by a node on
4 the packet-based network; and
5 a storage device containing an accounting unit in which the usage
6 information is collected, the accounting unit including a plurality of entries to identify
7 usage elements from which accounting may be derived.

1 22. The system of claim 21, wherein the entries of the accounting unit include
2 an entry identifying a type of service used.

1 23. The system of claim 21, wherein the entries of the accounting unit include
2 an entry identifying a quality of service used.

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1 24. The system of claim 21, wherein the entries of the accounting unit include
2 entries indicating elements used by a mobile node, including mobility management,
3 usage of a radio interface, and usage of a visited network.

1 25. The system of claim 21, wherein the accounting unit includes a traffic
2 matrix segment.

1 26. The system of claim 21, wherein the accounting unit is according to a
2 predetermined format, the system further including a unit to communicate the accounting
3 unit to another entity.

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1 27. A system for performing accounting for usage of services on a packet-
2 based network, comprising:
3 an accounting processor adapted to receive accounting units from at least
4 one other entity; and
5 a storage device to collect the accounting units, the accounting units
6 having a predetermined format and including information indicating at least a type of
7 service used over the network.

1 28. The system of claim 27, wherein the accounting processor is adapted to
2 generate billing to a subscriber based on one or more of the accounting units.

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1 29. An article including one or more machine-readable storage media
2 containing instructions for accounting for services used on a packet-based data network,
3 the instructions when executed causing a system to:
4 determine usage elements associated with each service, the usage elements
5 including a service type and amount of data communicated; and
6 collecting accounting units each including entries identifying the usage
7 elements.

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determine, from each accounting unit, usage of a service on the packet-

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